REMARKS

Reconsideration of the pending application is respectfully requested in view of the following observations.

In the specification

The specification is amended to include reference to priority applications as indicated on the Application Data Sheet.

No new matter is entered by way of the amendment to the specification.

Entry of the amendment to the specification is kindly requested.

In the claims

Claims 1, 17, and 26 are currently amended. Claims 6, 14, 18, and 19 are withdrawn – currently amended. Claims 2-5, 27, 28, and 33 are original, and claims 7-13, 15, 16, 20-25, and 29-32 have been withdrawn from further consideration.

The amended claims were amended to clarify the format of the claims and to correct typographical errors. The subject matter of the claims has not been amended.

No new subject matter is introduced by way of amendment to the claims.

Entry of the amendment to the claims is kindly requested.

Rejection of claims 1-4 and 17 under 35 USC 102(e) as being anticipated by US publication 2006/0294125 (*Deaven*)

Reconsideration of the rejection is respectfully requested in view of the following observations.

It is submitted that *Deaven* does not qualify as prior art for the instant application. The instant application is a national stage of PCT/BE2005/000173 published in English and claims priority to US provisional application no. 60/649,576 filed February 4, 2005. The Applicant submits that the subject matter in the claims is fully supported in the provisional application to which priority is claimed and should be given the benefit of the filing date of February 4, 2005. Thus, the effective filing date of February 4, 2005 is before the filing date of June 25, 2005 of *Deaven*.

Furthermore, this rejection is respectfully traversed on the basis that *Deaven* fails to disclose each and every element of claims 1 and 17 even if *Deaven* qualifies as prior art.

Claim 1

Claim 1 directed a method for transmission of images and/or video over bandwidth limited transmission channels having varying available bandwidth between a server and multiple devices. Claim 1 recites, in part, that each of the devices is prioritized and the classification algorithm increasing the compression ratio of the image and/or video encoding algorithms to a device having lower priority in case of decreasing bandwidth.

Deaven is directed to compressing an input data stream having one or more media regions before entering a network on the basis of one or more configuration file

metadata, source primitive metadata, and application high-level metadata of identified media regions (see Abstract). In paragraphs [0040] to [0045], Deaven lists different compression algorithms that may be selected when choosing to compress a data stream based on media content (see Fig. 4). All of those compression algorithms are well known in the art and are related to the image content.

It is submitted that *Deaven* fails to disclose the feature of prioritization of the multiple devices and increasing the compression ratio of the encoding algorithms for a device having lower priority when bandwidth is decreasing as required by claim 1.

Deaven describes the user accessing the rendering engine (104) through a network (102) using a computer or terminal (124) (see para. [0024]-[0025]). The compression engine (108) compresses the stream data produced by the rendering engine (104) and transmits the compressed stream to decompression engine (116) of the computer (124) (see para. [0027]). While *Deaven* describes a computer which receives the compressed data stream, *Deaven* does not disclose assigning priorities to multiple receiving computers and adjusting the compression ratio for the stream to each computer based on the computer's priority when available bandwidth is decreasing as required by claim 1. Further, *Deaven* does not describe any type of priority relationship between any of the computers or terminals (112, 114, 122, 124) shown in Fig. 1.

Therefore, *Deaven* does not disclose the feature of prioritizing multiple devices and changing the compression ratio of the data stream for a device based on the device's priority as required by claim 1.

Claim 17

Claim 17 recites the feature of that the classification algorithm prioritizes each of the spatial areas, the classification algorithm increasing the compression ratio of the image and/or video encoding algorithm dedicated to spatial areas having lower priority in case of decreasing bandwidth.

It is submitted that *Deaven* does not disclose the feature of changing the compression ratio of specific spatial areas depending on the priority of the spatial area when bandwidth is decreasing.

As similarly discussed above, *Deaven* does not disclose adjusting the compression ratio of algorithms based on assigned priorities. In claim 17, the compression ratios of the spatial areas have priorities and the compression ratios of each the spatial areas are dependent on the assigned priority. Even though *Deaven* suggests that the compression ratio may be relaxed to reduce delays inherently associated with having to perform compression operations when there is an increase in bandwidth, *Deaven* does not specifically disclose that the compression ratios are changed in view of the priorities of the spatial areas.

Therefore, *Deaven* fails to disclose all of the features of claim 17.

Claims 2-4 depend from claim 1, and are therefore patentable as containing all of the recited elements of claim 1, as well as for their respective recited features.

Withdrawal of the rejection of the claims is kindly requested.

Rejection of claims 5 and 28 under 35 USC 103(a) over US publication 2006/0294125 (*Deaven*) in view of US patent 6,037,991 (*Thro*)

Reconsideration of the rejection is respectfully requested in view of the following observations.

Claims 5 and 28 depend from claim 1 and are therefore patentable as containing all of the recited elements of claim 1, as well as for their respective recited features.

Furthermore, *Thro* does not cure the deficiencies of *Deaven* as discussed above since *Thro* does not teach or suggest prioritizing multiple devices and changing the compression ratio of the data stream for a device based on the device's priority.

The cited portion of *Thro* refers to determining a lead vehicle (police car) having a video for transmitting video information with priority based on the location of the lead vehicle (see col. 3, ll. 45-49, col. 4 ll. 47-67). *Thro* is directed to communication of video information from one communication device to another device via a modem taking the transmission frame rate and the resolution per frame into account for prioritizing (see Abstract). When deciding whether the transmission frame rate or the resolution per frame for transmissions has a higher priority, *Thro* takes into account the location of a device and its relationship to the intended destination (see col. 4, ll. 67 and col. 7, ll. 16-37). Therefore, *Thro* teaches determining whether transmission frame rate or resolution per frame is more important based on the location of the device and its relationship to the intended destination.

Thro teaches determining whether transmission frame rate or resolution per frame has higher priority based on how far away the device is from the intended destination, and *Thro* does not teach changing the compression ratio of the data stream for a device based on the device's priority.

Moreover, a person having ordinary skill in the art would not be motivated to combine *Deaven* and *Thro*. *Deaven* discusses compression algorithms for regions of the input data stream while *Thro* is concerned with transmission frame rate and resolution per frame of a moving device. *Deaven* is directed to stationary devices such as computers which are connected over a network to the compression engine and is concerned with providing a computationally efficient system for compressing data (see para. [0004]-[0005]). A person having ordinary skill in the art would not be led to combine modify *Deaven* based on the teachings of *Thro* which is directed to transmissions to a device in a moving car.

Since neither *Deaven* nor *Thro* teaches adjusting the compression ratio based on a device's assigned priority and a person having ordinary skill in the art would not combine *Deaven* and *Thro*, the proposed combination of *Deaven* does not establish a *prima facie* case of obviousness with respect to at least claim 1 from which claims 5 and 28 depend.

Withdrawal of the rejection of the claims is kindly requested.

Rejection of claims 26 and 27 under 35 USC 103(a) over US publication 2006/0294125 (*Deaven*) in view of US patent 6,553,150 (*Wee*)

Reconsideration of the rejection is respectfully requested in view of the following observations.

Claim 26 is directed to a method for transmission of images and/or video over bandwidth limited transmission channels having varying available bandwidth using a classification algorithm. The method includes providing padding pixels prior to

encoding to at least one of the spatial areas and the padding pixels being replaced by part of one of the other areas during decoding.

The rejection acknowledges that *Deaven* does not teach prior to encoding at least one of the areas being provided with padding pixels, the padding pixels being replaced by part of one of the other areas during decoding and relies on *Wee* for this teaching.

Wee is directed to a system having independently coded regions. Using these regions, one may specially compress and encode a data sequence in a manner that permits extraction or editing of select objects in the spatial domain, without need to decode and decompress entire sequences (see, for example, Col. 3, lines 3-7).

It is submitted that *Wee* does not cure the deficiency of *Deaven* by teaching or suggesting providing padding pixels to an area of an image prior to decoding the image which occurs prior to transmission of that image and replacing the padding pixels during decoding which occurs after transmission of the image as required by claim 26.

In the instant application, the padding pixels are provided when an object in an area has an irregular shape (231) (see Fig. 2). The irregularly shaped object is represented as a rectangle for easier encoding, and in order to do so, the irregularly shaped object is provided with padding pixels around the irregularly shaped object to give the object the appearance of being rectangular (see p. 10, ll. 18-26 of the specification).

In column 15, lines 9-36 of *Wee* as cited in the rejection, *Wee* teaches how a user selects new regions or changes existing regions of an image displayed on a screen. The user clicks a point on the screen and the software determines which region the user is trying to select. Once a region is selected, the user can then change the

boundaries of the region by "dragging" those boundaries in either a rectangular or non-rectangular fashion.

The padding pixels provide an avenue for the device adapt itself to the objects in an area without modifying the object itself for easier encoding. *Wee*, however, teaches a user changing the boundaries of the region and does not teach using padding pixels in to pad the boundaries of the region.

Since neither *Deaven* nor *Wee* teaches or suggests providing padding pixels to at least one of the areas of an image prior to encoding and replacing the padding pixels during decoding as required by independent claim 26, the proposed combination of *Deaven* and *Wee* does not establish a *prima facie* case of obviousness with respect to claim 26.

Claim 27 depends from claim 26 and is therefore patentable as containing all of the recited elements of claim 26, as well as for its respective recited features.

Withdrawal of the rejection of the claims is kindly requested.

<u>Rejection of claim 33 under 35 USC 103(a) over US publication 2006/0294125 (*Deaven*) in view of US patent 6,553,150 (*Wee*) and US patent 6,037,991 (*Thro*)</u>

Reconsideration of the rejection is respectfully requested in view of the following observations.

Claim 33 depends from claim 26 and is therefore patentable as containing all of the recited elements of claim 26, as well as for its respective recited features.

Furthermore, *Thro* does not cure the deficiencies of *Deaven* in view of *Wee* as discussed above since *Thro* does not teach or suggest providing padding pixels to at least one of the areas of an image prior to encoding and replacing the padding pixels during decoding as required by independent claim 26.

Withdrawal of the rejection of the claims is kindly requested.

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Conclusion

In view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicant's attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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